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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,891	07/17/2003	Graham Alan March	GAM 6410.1	2751

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EXAMINER	
KANTAMNENI, SHOBHA	
ART UNIT	PAPER NUMBER
1617	

NOTIFICATION DATE	DELIVERY MODE
05/15/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@senniger.com

Office Action Summary	Application No.	Applicant(s)	
	10/622,891	MARCH, GRAHAM ALAN	
	Examiner	Art Unit	
	Shobha Kantamneni	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-15,18-26,29-32 and 63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *NONE* is/are allowed.

6)☒ Claim(s) *1-3,6-15,18-26,29-32 and 63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to applicant's response filed on 03/14/2008.

Applicant's arguments have been considered, and found persuasive. The rejection of Claims 1-3, 6, 10, and 63 under 35 U.S.C. 103(a) as being unpatentable over Samid et al. (6,037,376, PTO-892), in view of Rubenstain et al. (US 2002/0115619, PTO-892), and further in view of Blase et al. (US 5,272,137, PTO-892) is herein withdrawn.

Applicant's arguments have been considered, and found persuasive. The rejection of Claims 1-3, 6-15, 18-26, 29-32, and 63 under 35 U.S.C. 103(a) as being unpatentable over Rubenstain et al. (US 2002/0115619, PTO-892), in view of Blase et al. (US 5,272,137, PTO-892) is herein withdrawn.

Claims 1-3, 6-15, 18-26, 29-32, and 63 are examined herein on the merits as they read on the elected invention.

Upon further consideration, the following new ground(s) rejections are made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 6, 10, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samid et al. (6,037,376, PTO-892), in view of Rubenstain et al. (US 2002/0115619, PTO-892), and further in view of D'Silva (US 6,550,955, PTO-892).

Samid et al. discloses pharmaceutical compositions comprising sodium phenylbutyrate, a water soluble sweetening agent, sugar, and a binder, Sterotex. See column 25-26, EXAMPLE 18, EXAMPLE 21, and EXAMPLE 21.

Samid et al. do not explicitly teach an aromatic flavoring agent.

Samid et al. do not teach the employment of the particular synthetic sweetening agents aspartame and potassium acesulfame.

Rubenstain et al. (US 2002/0115619, PTO-892) teach that sodium 4-phenylbutyrate has bad taste in the mouth. See page 13, paragraph [0143]. Rubenstain et al. teaches that compositions in the form of Tablet therein can contain sweetening agent, a flavoring agent, or some combinations thereof in order to provide pharmaceutically elegant and palatable preparation. See page 8, paragraphs [0097]-[0105]; paragraph [0112].

D'Silva teaches that many medicinal compounds possess unpleasant taste characterisitics. D'Silva further teaches that flavors and sweeteners are added to the medicinal compounds to enhance the palatability of the product. See column 6, lines 41-67; column 7, lines 1-9. It is disclosed that sweeteners such as aspartame, acesulfame potassium, saccharin, sucralose or mixtures, and fruit flavors such as cherry, grape, orange, strawberry or lemon are employed. See column 6, lines 41-67; column 7, lines 1-9. It is also taught that the amount of sweetener used in the pharmaceutical

composition therein can be from about 0.01 % w/v to about 5.0 % w/v. The flavoring agent can be present in an amount upto 5 grams per 100 mL of the suspension. See line 55-column 4, line 6, column 5; column 10, claims 1, 4.

It would have been obvious to a person of ordinary skill in the art at the time of invention to employ aromatic flavoring agents, and specific synthetic sweetening agents aspartame and potassium acesulfame in the compositions comprising sodium 4-phenylbutyrate taught by Samid et al. because 1) Rubenstain et al. teach that sodium 4-phenylbutyrate has a bad taste, and also teaches that the compositions comprising sodium 4-phenylbutyrate can contain flavoring agents, and artificial sweetening agents, and 2) D'Silva. teaches that aspartame, acesulfame potassium, saccharin, sucralose, and fruit flavors such as cherry, grape, orange, strawberry or lemon are employed in pharmaceutical compositions to mask the disagreeable taste of the pharmaceutically active agent. Thus, one of ordinary skill in the art at the time of invention would have been motivated to employ the well known fruit flavoring agent, strawberry flavoring agent, and the well artificial sweeteners with reasonable expectation of obtaining a pharmaceutical composition that is palatable, and masks the disagreeable taste of sodium 4-phenylbutyrate.

Furthermore, as the combined teachings of Samid et al., Rubenstein et al., D,Silva renders the claimed pharmaceutical composition obvious, the property of such a claimed composition will also be rendered obvious by the prior art teachings, since the properties, namely to mask substantially the bitter taste and pungent odor of sodium 4-phenylbutyrate in independent claim 10 are inseparable from its composition. Therefore,

if the prior art teaches the composition or renders the composition obvious, then the properties are also taught or rendered obvious by the prior art. In re Spada, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990.) See MPEP 2112.01. The burden is shifted to Applicant to show that the prior art product does not possess or render obvious the same properties as the instantly claimed product.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 6-15, 18-26, 29-32, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubenstain et al. (US 2002/0115619, PTO-892), in view of D'Silva (US 6,550,955, PTO-892).

Rubenstein et al. discloses a pharmaceutical composition comprising sodium 4-phenylbutyrate. See page 2, paragraph [0019], [0022]; page 11, [0122]; page 13, [0143]. It is also taught that the pharmaceutical compositions therein can be in the form of a tablet, a soft capsule, a chachet, a troche, or a lozenge. The formulations for oral administration include, a powdered or granular formulation, an aqueous or oily suspension, an aqueous or oily solution or emulsion. The compositions therein can contain binding agents such as polyvinylpyrrolidone, hydroxypropyl methylcellulose. The

compositions comprise from 0.1 % to 100 % (w/w) active ingredient. Page 8, paragraph [0094]. It is also disclosed that sodium 4-phenylbutyrate has bad taste in the mouth. See page 13, paragraph [0143]. The compositions in the form of Tablet therein can contain sweetening agent, a flavoring agent, or some combinations thereof in order to provide pharmaceutically elegant and palatable preparation. Sweetening agents include glycerol, propylene glycol, sorbitol, sucrose, and saccharin i.e a synthetic sweetening agent. See page 8, paragraphs [0097]-[0105]; paragraph [0112]. It is also taught that the pharmaceutical compositions therein can be in a single or multi unit-dose. See page 8, paragraph [0090].

Rubenstein et al. do not explicitly teach an aromatic flavoring agent.

Rubenstein et al. do not teach the employment of the particular synthetic sweetening agents aspartame and potassium acesulfame.

Rubenstein does not specifically teach the particular amounts of flavoring agents, sweetening agents, and binding agent in the composition therein.

D'Silva teaches that many medicinal compounds possess unpleasant taste characterisitics. D'Silva further teaches that flavors and sweeteners are added to the medicinal compounds to enhance the palatability of the product. taste masked pharmaceutical compositions. See column 6, lines 41-67; column 7, lines 1-9. It is disclosed that sweeteners such as aspartame, acesulfame potassium, saccharin, sucralose or mixtures, and fruit flavors such as cherry, grape, orange, strawberry or lemon are employed. See column 6, lines 41-67; column 7, lines 1-9. It is also taught that the amount of sweetener used in the pharmaceutical composition therein can be

from about 0.01 % w/v to about 5.0 % w/v. The flavoring agent can be present in an amount from about 0.05 % to about 2.0 % by weight. of the composition. See line 55-column 4, line 6, column 5; column 10, claims 1, 4.

It would have been obvious to a person of ordinary skill in the art at the time of invention to employ aromatic flavoring agents, and specific synthetic sweetening agents aspartame and potassium acesulfame in the compositions comprising sodium 4-phenylbutyrate because 1) Rubenstein et al. teach that sodium 4-phenylbutyrate has a bad taste, and also teaches that the compositions comprising sodium 4-phenylbutyrate can contain flavoring agents, and artificial sweetening agents, and 2) D'Silva teach that aspartame, acesulfame potassium, saccharin, sucralose in amount from about 0.01 % w/v to about 5.0 % w/v of composition, and fruit flavors such as cherry, grape, orange, strawberry or lemon in an amount from about 0.05 % to about 2.0 % by weight. of the composition are employed in pharmaceutical compositions to mask the disagreeable taste of the pharmaceutically active agent . Thus, one of ordinary skill in the art at the time of invention would have been motivated to employ the well known fruit flavoring agent, strawberry flavoring agent, and the well artificial sweeteners with reasonable expectation of obtaining a pharmaceutical composition that is palatable, and masks the disagreeable taste of sodium 4-phenylbutyrate.

It would have been obvious to a person of ordinary skill in the art at the time of invention to determine or optimize parameters such as amounts of flavoring agents, sweetening agents, and binding agent employed in the composition of Rubenstein et al., to obtain a pharmaceutical composition.

One having ordinary skill in the art at the time the invention was made would have been motivated to determine the amounts of flavoring agents, sweetening agents, and binding agent employed in the compositions, since D'Silva teach such amounts of flavoring agents, sweetening agents, and further the optimization of amounts of known agents in a composition, is considered well in the competence level of an ordinary skilled artisan in pharmaceutical science, involving merely routine skill in the art.

It has been held that it is within the skill in the art to select optimal parameters, such as amounts of ingredients, in a composition in order to achieve a beneficial effect. See *In re Boesch*, 205 USPQ 215 (CCPA 1980).

Furthermore, as the combined teachings of Rubenstein et al., D'Silva renders the claimed pharmaceutical composition obvious, the property of such a claimed composition will also be rendered obvious by the prior art teachings, since the properties, namely to mask substantially the bitter taste and pungent odor of sodium 4-phenylbutyrate in independent claims 10, 13, 20, 22 are inseparable from its composition. Therefore, if the prior art teaches the composition or renders the composition obvious, then the properties are also taught or rendered obvious by the prior art. In re Spada, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990.) See MPEP 2112.01. The burden is shifted to Applicant to show that the prior art product does not possess or render obvious the same properties as the instantly claimed product.

It is pointed out that the recitation "the unit dose prepared by diluting with water an aliquot of a concentrated aqueous solution containing at atleast about 200 mg/ml of

sodium 4-phenylbutyrate" in instant claim 20, and "wherein the granules are mixed with the at least one synthetic water soluble softening agent and with at least one water soluble flavoring agent to form the wetted mass" in claim 31, are product-by-process limitations. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 ('Fed. Cir. 1985). See MPEP 21 13.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shobha Kantamneni whose telephone number is 571-272-2930. The examiner can normally be reached on Monday-Thursday, 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, Ph.D can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shobha Kantamneni, Ph.D
Patent Examiner
Art Unit : 1617

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1617

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/622,891	MARCH, GRAHAM ALAN	
	Examiner	Art Unit	
	Shobha Kantamneni	1617	